(b) a data splitter adapted to split a received 100 Mbps Ethernet stream into one to four 25 Mbps data upstream signals;

(c) a 100BaseS port having one to four DSL ports coupled to said data splitter, wherein each DSL port is adapted to generate a separate upstream DSL signal from a 25 Mbps data upstream signal, wherein each generated upstream DSL signal is coupled to a corresponding separate copper twisted pair wire connected to said DSL port, wherein each DSL port is further adapted to receive a downstream DSL signal and to generate a 25 Mbps downstream signal, wherein each 25 Mbps downstream signal is received over said corresponding copper twisted pair wire; and

(d) a data collection and reorganization unit coupled to said one to four DSL ports and adapted to assemble said one to four 25 Mbps downstream signals into a single 100 Mbps Ethernet data stream for transmission by said physical layer module.

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19. The modem according to claim 18, comprising a flow and rate control memory for storing the 100 Mbps Ethernet data stream assembled by said data collection and reorganization unit, wherein the flow and rate control memory is provided to soak differences in transmitting rates between said 100BaseS port and said 100BaseT port.

20. The modem according to claim 19, comprising a configuration and auto sense unit for sensing the number of DSL ports of the 100BaseS port installed in the modem.

21. The modem according to claim 20, comprising a MII interface, which is connected to the physical layer module via a 2port MII bridge.

22. The modem according to claim 21, comprising a controller for configuring the MII interface, the data collection and reorganization unit and the data splitter depending on the number of DSL ports sensed by said configuration and auto sense unit.

23. A point to point facility transport system fore the symmetrical bi-directional transport of 100BaseTX Ethernet frame data over N copper wire pairs connecting a central office facility to a customer premise, comprising:

N downstream data transmission paths for transporting a single 100BaseTX Ethernet signal from the central office facility to the customer premise, each downstream transmission path operative to transport a 25 Mbps data stream;

N upstream transmission paths for transporting a single 100BaseTX Ethernet signal from the customer premise to the central office facility, each upstream transmission path operative to transport path operative to transport a 25 Mbps data stream;

first modem means located at the central office facility and coupled to one end of said N downstream transmission paths and one end of said N upstream transmission paths;

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second modem means located at the customer premises and coupled to the other end of said N downstream transmission paths and the other end of said N upstream transmission paths;

wherein said first modem means and said second modem means are operative to place onto and receive from said N copper wire pairs, data frames encapsulating said 100BaseTX Ethernet frame data; and

wherein said first modem means and said second modem means further comprises:

(a) a 100 BaseT port connected to a physical layer module adapted to receive and transmit 100BaseT Ethernet signals;

(b) a data splitter adapted to a split received 100 Mbps Ethernet stream into one to four 25 Mbps data upstream signals;

(c) a 100BaseS port having one to four DSL ports coupled to said data splitter, wherein each DSL port is adapted to generate a separate upstream DSL signal from a 25 Mbps data upstream signal, wherein each generated upstream DSL signal is coupled to a

corresponding separate copper twisted pair wire connected to a DSL port, wherein each DSL port is further adapted to receive a downstream DSL signal and to generate a 25 Mbps downstream signal, wherein each 25 Mbps downstream signal is received over said corresponding copper twisted pair wire; and

(d) a data collection and reorganization unit coupled to said one to four DSL ports and adapted to assemble said one to four 25 Mbps downstream signals to a single 100 Mbps Ethernet data stream for transmission by said physical layer module.

24. The facility transport system according to claim 23, wherein the downstream transmission path utilizes quadrature amplitude modulation (QAM) to transport said Ethernet frame data from said central office facility to said customer premise.

25. The facility transport system according to claim 23, wherein said upstream transmission path utilizes quadrature amplitude modulation (QAM) to transport said Ethernet frame data from said customer premise to said central office facility.

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26. The facility transport system for a symmetrical bi-directional transport of 100BaseTX Ethernet frame data over N copper wire pairs connecting a central office facility to a customer premise, comprising:

N downstream transmission paths for transporting a single 100Base TX Ethernet signal from the central office facility to the customer premise, each downstream transmission path operative to transport a 25 Mbps data stream;

N upstream transmission paths for transporting a single 100BaseTX Ethernet signal from the customer premise to the central office facility, each upstream transmission path operative to transport a 25 Mpbs data stream;

switch means located at the central office facility and coupled to one end of said N downstream transmission paths and one end of said N upstream transmission paths;

a network element located at the customer premises and coupled to the other end of said N downstream transmission paths and the other end of said N upstream transmission paths;

wherein each switch means and said network element are operative to place onto and receive from said N copper wire pairs data frames encapsulating 100BaseTX Ethernet frame data and wherein N is a positive integer in the range of one to four;

wherein each switch means and network elements comprises at least one modem having :

(a) a 100BaseT port connected to a physical layer module adapted to receive and transmit 100BaseT Ethernet signals;

(b) a data splitter adapted to split a received 100 Mbps Ethernet stream into one to four 25 Mbps data upstream signals;

(c) a 100BaseS port having one to four DSL ports coupled to said data splitter, wherein each DSL port is adapted to generate a separate upstream DSL signal from a 25 Mbps data upstream signal, wherein each generated upstream DSL signal is coupled to a corresponding separate copper twisted pair wire connected to said DSL port,

wherein each DSL port is further adapted to receive a downstream DSL signal and to generate a 25Mbps downstream signal,

wherein each 25 Mbps downstream signal is received over said corresponding copper twisted pair wire; and

(d) a data collection and reorganization unit coupled to said one to four DSL ports and adapted to assemble said one to

four 25 Mbps downstream signals into a single 100 Mbps Ethernet data stream for transmission by said physical layer module.

27. The facility transport system according to claim 26, wherein each downstream transmission path utilizes quadrature amplitude modulation (QAM) to transport said 100BaseTX Ethernet frame data from said central office facility to said customer premise.

28. The facility transport system according to claim 26, wherein each upstream transmission path utilizes quadrature amplitude modulation (QAM) to transport said 100BaseTX Ethernet frame data from said customer premise to said central office facility.